

Title (en)
MICRONEEDLE DEPOSITION TECHNIQUE

Title (de)
MIKRONADELABLESCHEIDUNGSTECHNIK

Title (fr)
TECHNIQUE DE DÉPÔT PAR MICRO-AIGUILLE

Publication
EP 2769749 A4 20150506 (EN)

Application
EP 11874199 A 20111020

Priority
JP 2011074159 W 20111020

Abstract (en)
[origin: EP2769749A1] The present invention provides a microneedle array which holds a drug only in the microneedle portions, and a method of manufacturing the same. The microneedle array 2A which holds the drug only on the tips of the microneedles can be manufactured by the microneedle deposition method, i.e. a) the microneedle array 2 is prepared using an water-soluble polymer as a base material; b) a drug solution 1 to be applied to the tips of the microneedle array 2 is prepared; and c) the tips of the microneedle array 2 are contacted with the drug solution 1 for a short time. When the drug solution 1 is a water solution, the biodegradable polymer is of water-soluble, and in addition to the drug, the biodegradable polymer is dissolved in the solution at high concentration, the applied drug is integrated with the microneedle so that only the drug does not fall away during insertion.

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A61M 2037/0053 (2013.01 - EP US)

Citation (search report)
• [X] WO 2009021048 A2 20090212 - TRANSDERM INC [US], et al
• [X] WO 2008139648 A1 20081120 - HISAMITSU PHARMACEUTICAL CO [JP], et al & EP 2153863 A1 20100217 - HISAMITSU PHARMACEUTICAL CO [JP]
• [XI] WO 2010074239 A1 20100701 - HISAMITSU PHARMACEUTICAL CO [JP], et al & EP 2383013 A1 20111102 - HISAMITSU PHARMACEUTICAL CO [JP]
• See references of WO 2013057819A1

Cited by
US2018056053A1; CN115282114A; EP3705155A4

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